



FARMERS RURAL ELECTRIC COOPERATIVE CORPORATION

504 SOUTH BROADWAY • P.O. BOX 1298 • GLASGOW, KENTUCKY 42142-1298 • (270) 651-2191
JACKIE B. BROWNING, PRESIDENT AND CEO

April 7, 2005

Ms. Elizabeth O'Donnell
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602

RECEIVED

APR 07 2005

PUBLIC SERVICE
COMMISSION

RE: Administrative Case No. 2005-00090

Dear Ms. O'Donnell:

Please find enclosed an original and ten copies of the response of Farmers Rural Electric Cooperative Corporation to the data request of the Commission dated March 10, 2005 in the above-styled matter. I certify that a copy of this filing has been served on the persons shown on the attached service list.

Thank you for cooperation in this matter. Please contact me at (270) 651-2191 if you have any questions.

Sincerely,

Jackie B. Browning
President & CEO

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**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION
OF KENTUCKY**

RECEIVED

APR 07 2005

PUBLIC SERVICE
COMMISSION

In the Matter of:

AN ASSESSMENT OF)	
KENTUCKY'S ELECTRIC)	ADMINISTRATIVE
GENERATION, TRANSMISSION)	CASE NO. 2005-00090
AND DISTRIBUTION NEEDS)	

**FARMERS RURAL ELECTRIC COOPERATIVE CORPORATION
RESPONSE TO THE INFORMATION REQUESTS CONTAINED IN
COMMISSION'S ORDER OF MARCH 10, 2005**

April 7, 2005

FARMERS RURAL ELECTRIC COOPERATIVE CORPORATION

PSC ADMINISTRATIVE CASE NO. 2005-00090

AN ASSESSMENT OF KENTUCKY'S ELECTRIC GENERATION, TRANSMISSION

AND DISTRIBUTION NEEDS

FIRST DATA REQUEST RESPONSE

COMMISSION'S FIRST DATA REQUEST DATED MARCH 10, 2005

REQUEST 1

RESPONSIBLE PARTY: Chuck Bishop/Tony Wells

REQUEST 1. Provide a summary description of your utility's resource planning process.

This should include a discussion of generation, transmission, demand-side, and distribution resource planning.

RESPONSE 1. Farmers' resource planning process includes the development of long-range load forecasts, long-range construction work plans, four-year construction work plans, and annual construction work plans. A summary description of the process is given below.

Farmers and its power supplier, East Kentucky Power Cooperative ("EKPC"), work jointly to prepare Farmers' twenty-year long-range load forecast. The load forecast is prepared biannually as part of the overall planning process at Farmers and EKPC. Cooperation helps ensure that the forecast meets both parties' needs.

The load forecast projects Farmers' long-range energy and peak demand requirements. Factors considered in preparing the forecast include the national and local economy, population and housing trends, service area industrial development, electric price, household income, weather, and appliance saturation. The projections also reflect a rigorous analysis of historical data combined with the experience and judgment of the manager and staff of Farmers.

The load forecast is developed in consultation with a Rural Utilities Service ("RUS") general field representative. Following completion, it is submitted to Farmers' Board of Directors and RUS for review and approval.

Farmers and EKPC use the load forecast in a variety of ways. EKPC uses the information in areas of marketing analysis, transmission planning, generation planning, demand-side planning, and financial forecasting. Farmers uses the information in developing long-range construction work plans, four-year construction work plans, annual work plans, annual budgets, marketing programs, and financial forecasts.

Farmers prepares a 20-year long-range construction work plan. The purpose of the long-range construction work plan is to establish a guide to assist Farmers in making an economical and smooth transition from today's electric distribution system to the distribution system required in the future. It provides an objective directional path to meet long-range expected needs. The long-range construction work plan is used by Farmers to develop four-year construction work plans and long-range financial forecasts.

The long-range construction work plan is developed in consultation with EKPC and a RUS general field representative. Following completion, it is submitted to Farmers' Board of Directors and RUS for review and approval.

Farmers prepares a four-year construction work plan. The purpose of this plan is to identify the distribution facilities that will be required over the study period for Farmers to meet anticipated load growth and systematically replace equipment and facilities approaching the end of their serviceable life. It provides an objective directional path to meet short-term expected needs. The four-year construction work plan is used by Farmers in developing annual work plans, annual budgets, and financial forecasts. It also serves as support documentation for loan applications to finance the construction.

An integral part of the development of the four-year construction work plan is an in-depth engineering analysis of Farmers' existing distribution system and the ability of the system to meet existing and projected load requirements. The work plan also reflects a rigorous analysis of historical data, recent growth trends, line inspection records, outage reports, and etc. combined with the experience and judgment of the manager and staff of Farmers.

The four-year construction work plan is developed in consultation with EKPC and a RUS general field representative. Following completion, it is submitted to Farmers' Board of Directors, RUS, and the Public Service Commission for review and/or approval.

Farmers prepares an annual construction work plan. The purpose of this plan is to prioritize and schedule the distribution construction items included in its four-year

construction work plan. It is used by Farmers in developing annual budgets, short-term financial forecasts, and in determining staffing requirements.

The annual construction work plan is driven by the approved four-year construction work plan. However, it also takes into consideration recent growth trends, line inspection records, outage reports, and etc. combined with the experience and judgment of the manager and staff of Farmers.

The annual construction work plan is submitted to Farmers' Board of Directors for review and approval.

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COMMISSION'S FIRST DATA REQUEST DATED MARCH 10, 2005

REQUEST 2

RESPONSIBLE PARTY: Jimmy Barrick/Chuck Bishop/Frank Brockman/

Jerry Carter/Terry Jeffries/Tony Wells

REQUEST 2. Are new technologies for improving reliability, efficiency and safety investigated and considered for implementation in your power generation, transmission and distribution system?

RESPONSE 2. Farmers does not own or control generation or transmission facilities. It does consider new technologies with distribution system applications.

REQUEST 2a. If yes, discuss the new technologies that were considered in the last 5 years and indicate which, if any, were implemented.

RESPONSE 2a. Farmers constantly monitors and assesses emerging technologies that have the potential to improve the reliability, efficiency, and safety of its operations. If Farmers' initial assessment of a new technology shows that it is technically sound and has promise, a comprehensive technical assessment and business plan is prepared and reviewed by management and staff. Decisions regarding the implementation of new technologies are made only after thoughtful and thorough consideration.

With respect to reliability, Farmers has researched and considered Supervisor Control And Data Acquisition systems (SCADA), fault indicators, lightning arrester test equipment, insulator test equipment, distribution substation power quality monitoring devices, and power quality monitoring devices for site-specific applications. Of these technologies, all have been purchased and implemented with the exception of SCADA.

With respect to efficiency, Farmers has researched and considered GPS Vehicle Tracking systems, rock augers, mobile computers in vehicles, right-of-way brush monitors, multi-purpose all-terrain vehicles, Automatic Meter Reading systems (AMR), underground cable locators, outage management systems, vehicle maintenance software, and 3rd party after hours emergency answering services. Of these technologies, rock augers, underground cable locators, vehicle maintenance software, and 3rd party after hours emergency answering services been implemented. AMR is included in Farmers' Construction Work Plan (CWP) and will be implemented in the near future. The other technologies mentioned are still under consideration.

Finally, the safety of its employees and the general public is of the highest

priority at Farmers. Farmers considered and now has access to a High Voltage Safety Demonstration Trailer. Farmers uses this equipment in training sessions for its employees, emergency responders, schools, and community groups.

Farmers considered and purchased a portable tabletop safety demonstration unit similar to, but on a much smaller scale of, the demonstration trailer. This equipment is used primarily for demonstrations at local schools systems.

Farmers also considered and is implementing a computer-based employee training system. This program has a strong safety emphasis and will supplement Farmers' current program and efforts.

REQUEST 2b. If no, explain in detail why new technologies are not considered.

RESPONSE 2b. Request 2b does not apply.

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REQUEST 5

RESPONSIBLE PARTY: Chuck Bishop/Tony Wells

REQUEST 5. Provide actual and weather-normalized annual coincident peak demands for calendar years 2000 through 2004 disaggregated into (a) native load demand, firm and non-firm; and (b) off-system demand, firm and non-firm.

RESPONSE 5. Please see page 2 of 2 of this response.

Farmers RECC					
Actual Annual Coincident Peak Demands					
Date	Native Load (MW)		Off-system Load (MW)		Annual Peak (MW)
	Firm	Non-firm	Firm	Non-firm	
December-00	105	0	0	0	105
January-01	102	0	0	0	102
January-02	100	0	0	0	100
January-03	119	0	0	0	119
January-04	107	0	0	0	107

Farmers RECC					
Weather-Normalized Annual Coincident Peak Demands					
Date	Native Load (MW)		Off-system Load (MW)		Annual Peak (MW)
	Firm	Non-firm	Firm	Non-firm	
December-00	116	0	0	0	116
January-01	104	0	0	0	104
January-02	110	0	0	0	110
January-03	116	0	0	0	116
January-04	112	0	0	0	112

*Based on Bowling Green KY Weather Station Data
and Farmers RECC Hourly Load Data*

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REQUEST 17

RESPONSIBLE PARTY: Jackie B. Browning/Greg Houchens/Bobby White

REQUEST 17. Provide a summary description of your utility's existing demand-side management ("DSM") programs, which includes:

- a. Annual DSM budget.
- b. Demand and energy impacts.
- c. The currently scheduled termination dates for the programs.

RESPONSE 17. Farmers and EKPC work together to design DSM programs. Program implementation is done by Farmers with technical and financial support provided by EKPC.

Farmers is actively involved in one DSM program. Its "Button Up" program is a residential energy conservation and weatherization program. Following a comprehensive home energy audit, homeowners receive specific recommendations to reduce the space heating/cooling requirements of their home. These recommendations normally include

installation of additional attic and/or crawl space insulation. Qualifying homeowners can receive an incentive of up to \$400 to make the suggested improvements.

RESPONSE 17a. Farmers annual DSM budget is approximately \$75,000.

RESPONSE 17b. In 2004, 122 consumers took advantage of the Button Up program. Participating consumers can expect an average annual reduction in use of 2,700 kWh. Farmers can expect an average reduction in coincident winter peak demand of 2.7 kW per participating consumer. It can expect an average reduction in coincident summer peak demand of 1.0 kW per participating consumer.

RESPONSE 17c. Farmers does not have a scheduled termination date for the Button Up program.

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REQUEST 18

RESPONSIBLE PARTY: Jackie B. Browning

REQUEST 18. Provide your utility's definition of "transmission" and "distribution."

RESPONSE 18. For the purpose of this study, Farmers defines transmission as those power delivery facilities owned or provided by EKPC inclusive of the distribution substation circuit breakers for each circuit feeder and any and all facilities on the source-side of said breakers.

For the purpose of this study, Farmers defines distribution as those power delivery facilities owned by Farmers beyond the load-side of EKPC's distribution substation circuit breakers for each circuit feeder.

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REQUEST 19

RESPONSIBLE PARTY: Jackie B. Browning

REQUEST 19. Identify all utilities with which your utility is interconnected and the transmission capacity at all points of interconnection.

RESPONSE 19. Farmers does not own or control transmission facilities. Its only interconnects are with EKPC.

FARMERS RURAL ELECTRIC COOPERATIVE CORPORATION

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REQUEST 20

RESPONSIBLE PARTY: Jackie B. Browning

REQUEST 20. Provide the peak hourly MW transfers into and out of each interconnection for each month of the last 5 years. Provide the date and time of each peak.

RESPONSE 20. Farmers does not own or control transmission facilities. Its only interconnects are with EKPC.

FARMERS RURAL ELECTRIC COOPERATIVE CORPORATION

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REQUEST 21

RESPONSIBLE PARTY: Jackie B. Browning

REQUEST 21. Identify any areas on your utility's system where capacity constraints, bottlenecks, or other transmission problems have been experienced from January 1, 2003 until the present date. Identify all incidents of transmission problems by date and hour, with a brief narrative description of the nature of the problem. Provide the MW transfers for each of your utility's interconnections for these items.

RESPONSE 21. Farmers does not own or control transmission facilities. Its only interconnects are with EKPC.

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REQUEST 22

RESPONSIBLE PARTY: Jackie B. Browning

REQUEST 22. Provide details of any planned transmission capacity additions for the 2005 through 2025 period. If the transmission capacity additions are for existing or expected constraints, bottlenecks, or other transmission problems, identify the problem the addition is intended to address.

RESPONSE 22. Farmers does not own or control transmission facilities.

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REQUEST 23

RESPONSIBLE PARTY: Jackie B. Browning

REQUEST 23. Is your utility researching or considering methods of increasing transmission capacity of existing transmission routes? If yes, discuss those methods.

RESPONSE 23. Farmers does not own or control transmission facilities.

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REQUEST 24

RESPONSIBLE PARTY: Jackie B. Browning

REQUEST 24. Provide copies of any reports prepared by your utility or for your utility that analyze the capabilities of the transmission system to meet present and future needs for import and export of capacity.

RESPONSE 24. Farmers does not own or control transmission facilities.

FARMERS RURAL ELECTRIC COOPERATIVE CORPORATION

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REQUEST 25

RESPONSIBLE PARTY: Jackie B. Browning

REQUEST 25. Provide the following transmission energy data forecast for the years 2005 through 2025.

- a. Total energy received from all interconnections and generation sources connected to your transmission system.
- b. Total energy delivered to all interconnections on your transmission system.
- c. Peak demand for summer and winter seasons on your transmission system.

RESPONSE 25. Farmers does not own or control transmission facilities.

FARMERS RURAL ELECTRIC COOPERATIVE CORPORATION

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REQUEST 26

RESPONSIBLE PARTY: Tony Wells

REQUEST 26. Provide the yearly System Average Interruption Duration Index ("SAIDI") and the System Average Interruption Frequency Index ("SAIFI"), excluding major outages, by feeder for each distribution substation on your system for the last 5 years.

RESPONSE 26. Yearly SAIDI and SAIFI values are shown on page 2 of this response.

Farmers RECC

SAIDI & SAIFI by Substation & Circuit - Excluding Major Storms

Substation	Circuit	2000		2001		2002		2003		2004	
		SAIDI	SAIFI								
1	1	1.45	1.37	2.99	1.67	1.96	1.29	4.84	2.69	7.03	2.10
1	2	0.86	0.58	2.71	2.13	6.07	3.22	2.99	2.13	0.49	0.26
1	3	0.76	0.44	1.79	0.68	4.07	1.59	2.26	1.85	0.15	0.10
1	4	1.95	1.13	8.54	2.43	5.13	1.94	3.21	2.78	2.68	1.78
1	5	9.65	4.26	0.26	0.22	0.93	0.68	1.26	1.17	0.49	0.59
2	1	9.00	6.84	6.50	3.74	19.23	6.08	6.60	1.99	7.70	3.96
2	2	12.81	7.26	11.04	3.35	4.34	1.79	8.34	2.86	9.65	2.44
2	3	3.35	2.82	1.65	0.67	4.56	2.37	1.21	0.63	3.93	1.37
2	4	1.38	2.07	0.00	0.00	7.84	1.49	0.00	0.00	5.83	4.67
2	5	8.51	4.32	2.29	1.01	4.51	3.34	3.54	1.37	3.44	1.46
2	6	7.68	3.47	6.30	2.32	10.91	2.92	2.99	1.12	8.53	5.15
2	7	0.00	0.00	0.00	0.00	2.00	1.30	0.00	0.00	3.75	1.00
3	1	8.06	4.12	4.99	3.45	2.51	0.79	0.59	0.53	3.49	1.37
3	2	1.28	0.85	2.50	1.83	2.03	2.36	4.85	2.20	1.21	0.75
3	3	2.07	2.67	0.52	0.33	0.88	0.51	1.37	1.82	1.58	1.24
3	4	10.28	5.71	2.64	1.48	8.72	5.99	7.69	3.58	2.56	1.60
3	5	5.26	1.77	1.86	0.72	9.10	3.32	0.54	0.24	4.92	1.82
3	6	0.00	0.00	0.04	0.04	0.81	2.32	0.43	0.38	0.92	0.26
4	1	1.77	1.27	5.92	3.79	1.70	2.22	0.99	0.53	2.95	0.99
4	2	2.45	1.82	6.58	2.45	1.70	1.55	2.60	0.98	3.62	1.34
4	3	2.87	3.59	1.00	1.06	1.71	1.52	0.73	0.30	0.39	0.29
4	4	1.79	1.49	1.58	1.53	2.24	1.73	0.62	0.42	3.55	1.85
4	5	0.00	0.00	0.00	0.00	4.32	2.38	3.10	2.73	7.05	2.96
5	1	3.81	1.89	2.07	0.70	1.75	0.76	0.65	1.34	2.17	1.24
5	2	4.88	2.58	1.28	2.31	4.21	1.77	2.43	1.76	0.72	0.44
5	3	9.57	4.36	0.52	0.44	0.32	0.16	2.56	2.39	2.36	0.95
5	4	6.51	3.25	1.06	1.00	0.86	0.51	0.93	1.26	0.66	0.47
6	1	1.28	0.38	1.92	1.39	1.21	0.80	1.18	0.60	1.36	0.57
6	2	0.00	0.00	0.03	0.03	7.06	2.23	0.00	0.00	0.02	0.03
6	3	1.97	0.86	1.43	0.73	6.55	3.81	0.58	0.31	0.29	0.14
6	4	1.01	0.71	2.60	2.73	0.44	0.40	0.68	0.28	2.75	1.33
7	1	0.00	0.00	0.00	0.00	0.45	0.15	0.00	0.00	0.00	0.00
7	2	1.23	1.01	0.41	0.25	0.33	0.33	1.08	1.34	0.83	0.46
7	3	1.67	0.97	1.27	0.91	2.00	1.22	0.70	1.19	0.89	1.48
7	4	0.90	0.75	1.02	0.67	1.04	0.63	1.11	1.65	0.26	0.24
8	1	1.76	1.23	0.83	0.95	0.77	1.05	4.71	1.95	0.22	0.19
8	2	1.46	1.30	1.68	0.73	3.55	3.52	0.88	0.88	1.87	1.37
8	3	1.65	1.87	0.32	0.42	1.47	1.25	0.00	0.00	0.00	0.00
9	1	6.85	1.78	1.37	0.74	0.76	0.46	2.43	1.45	4.00	2.29
9	2	7.94	4.24	2.23	1.19	8.27	1.95	0.71	0.18	5.29	1.75
10	1	1.88	1.52	4.58	1.60	1.05	0.40	2.71	2.54	0.41	0.34
10	2	0.00	0.00	0.00	0.00	0.00	0.00	0.57	1.28	0.05	0.05
11	2	1.08	0.59	1.29	1.00	4.50	2.12	2.96	1.70	2.52	1.80
11	3	2.49	2.28	0.82	0.82	2.48	0.43	0.03	0.02	0.21	0.07
11	4	8.49	3.38	0.00	0.00	2.03	1.58	3.87	1.13	7.88	3.57

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REQUEST 27

RESPONSIBLE PARTY: Tony Wells

REQUEST 27. Provide the yearly SAIDI and SAIFI, including major outages, by feeder for each distribution substation on your system for the last 5 years. Explain how you define major outages.

RESPONSE 27. Farmers uses the standard RUS terminology suggested in REA Bulletin 161-1 to classify service interruptions. The term "major storm" is used in lieu of "major outage." "Major storm" represents service interruptions from conditions which cause many concurrent outages because of snow, ice or wind loads that exceed design assumptions for the lines.

Yearly SAIDI and SAIFI values are shown on page 2 of this response.

Farmers RECC

SAIDI & SAIFI by Substation & Circuit - Including Major Storms

Substation	Circuit	2000		2001		2002		2003		2004	
		SAIDI	SAIFI								
1	1	1.45	1.37	2.99	1.67	1.96	1.29	4.84	2.69	23.02	2.49
1	2	0.86	0.58	2.71	2.13	6.07	3.22	2.99	2.13	7.88	0.48
1	3	0.76	0.44	1.79	0.68	4.07	1.59	2.26	1.85	9.19	0.90
1	4	1.95	1.13	8.54	2.43	5.13	1.94	3.21	2.78	2.68	1.78
1	5	9.65	4.26	0.26	0.22	0.93	0.68	1.26	1.17	1.35	0.60
2	1	9.00	6.84	6.50	3.74	19.23	6.08	8.01	3.09	64.31	8.03
2	2	12.81	7.26	11.04	3.35	4.34	1.79	19.69	5.20	52.29	4.55
2	3	3.35	2.82	1.65	0.67	4.56	2.37	2.82	1.78	40.01	4.02
2	4	1.38	2.07	0.00	0.00	7.84	1.49	1.00	1.00	5.83	4.67
2	5	8.51	4.32	2.29	1.01	4.51	3.34	4.74	2.39	28.41	3.12
2	6	7.68	3.47	6.30	2.32	10.91	2.92	4.04	2.16	58.75	8.00
2	7	0.00	0.00	0.00	0.00	2.00	1.30	1.02	1.02	3.75	1.00
3	1	8.06	4.12	4.99	3.45	2.51	0.79	0.59	0.53	12.09	1.77
3	2	1.28	0.85	2.50	1.83	2.03	2.36	4.85	2.20	17.65	1.21
3	3	2.07	2.67	0.52	0.33	0.88	0.51	1.74	2.03	10.64	1.66
3	4	10.28	5.71	2.64	1.48	8.72	5.99	7.74	3.63	17.62	2.76
3	5	5.26	1.77	1.86	0.72	9.10	3.32	0.54	0.24	14.88	2.04
3	6	0.00	0.00	0.04	0.04	0.81	2.32	0.43	0.38	1.15	0.26
4	1	1.77	1.27	5.92	3.79	1.70	2.22	0.99	0.53	6.73	1.24
4	2	2.45	1.82	6.58	2.45	1.70	1.55	2.60	0.98	4.34	1.37
4	3	2.87	3.59	1.00	1.06	1.71	1.52	0.73	0.30	0.71	0.30
4	4	1.79	1.49	1.58	1.53	2.24	1.73	0.62	0.42	15.47	2.26
4	5	0.00	0.00	0.00	0.00	4.32	2.38	3.10	2.73	9.88	3.09
5	1	3.81	1.89	2.07	0.70	1.75	0.76	0.65	1.34	2.47	1.25
5	2	4.88	2.58	1.28	2.31	4.21	1.77	2.43	1.76	2.50	0.51
5	3	9.57	4.36	0.52	0.44	0.32	0.16	2.56	2.39	6.17	1.20
5	4	6.51	3.25	1.06	1.00	0.86	0.51	1.04	1.37	7.72	1.00
6	1	1.28	0.38	1.92	1.39	1.21	0.80	1.18	0.60	9.30	1.02
6	2	0.00	0.00	0.03	0.03	7.06	2.23	0.00	0.00	1.16	0.05
6	3	1.97	0.86	1.43	0.73	6.55	3.81	0.58	0.31	9.70	0.75
6	4	1.01	0.71	2.60	2.73	0.44	0.40	0.68	0.28	5.40	1.42
7	1	0.00	0.00	0.00	0.00	0.45	0.15	0.26	1.02	0.00	0.00
7	2	1.23	1.01	0.41	0.25	0.33	0.33	1.08	1.34	4.54	0.59
7	3	1.67	0.97	1.27	0.91	2.00	1.22	0.70	1.19	5.68	1.65
7	4	0.90	0.75	1.02	0.67	1.04	0.63	1.11	1.65	3.29	0.47
8	1	1.76	1.23	0.83	0.95	0.77	1.05	4.71	1.95	4.62	0.59
8	2	1.46	1.30	1.68	0.73	3.55	3.52	1.57	1.14	7.82	1.76
8	3	1.65	1.87	0.32	0.42	1.47	1.25	0.00	0.00	4.43	0.07
9	1	6.85	1.78	1.37	0.74	0.76	0.46	3.11	2.45	76.96	3.89
9	2	7.94	4.24	2.23	1.19	8.27	1.95	1.37	1.19	32.33	2.85
10	1	1.88	1.52	4.58	1.60	1.05	0.40	2.71	2.54	1.56	0.42
10	2	0.00	0.00	0.00	0.00	0.00	0.00	0.57	1.28	91.70	7.15
11	2	1.08	0.59	1.29	1.00	4.50	2.12	3.07	1.82	4.22	1.89
11	3	2.49	2.28	0.82	0.82	2.48	0.43	0.03	0.02	0.21	0.07
11	4	8.49	3.38	0.00	0.00	2.03	1.58	3.87	1.13	23.80	4.14

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REQUEST 28

RESPONSIBLE PARTY: Tony Wells

REQUEST 28. What is an acceptable value for SAIDI and SAIFI? Explain how it was derived.

RESPONSE 28. Although Farmers has tracked its annual total system SAIDI and SAIFI for a number of years, it has not established a performance standard or goal for these indices. REA Bulletin 161-1 provides some general guidelines for rural electric systems. Bulletin 161-1 suggests an annual total system SAIDI value of 5 or less as a generally acceptable standard. The bulletin does not address an acceptable value for SAIFI.

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REQUEST 29

RESPONSIBLE PARTY: Tony Wells

REQUEST 29. Provide the yearly Customer Average Interruption Duration Index (“CAIDI”) and the Customer Average Interruption Frequency Index (“CAIFI”), including and excluding major outages, on your system for the last 5 years. What is an acceptable value for CAIDI and CAIFI? Explain how it was derived.

RESPONSE 29. Farmers does not retain outage data at the customer level. Therefore, CAIFI values for Farmers are not available. CAIDI values for Farmers are shown on page 2 of this response.

Farmers has not established a performance standard or goal for these indices.

Farmers RECC

CAIDI & CAIFI - Including Major Storms

<u>Year</u>	<u>CAIDI</u>	<u>CAIFI</u>
2000	1.80	NA
2001	1.83	NA
2002	1.90	NA
2003	1.67	NA
2004	6.94	NA

NA = Not Available.

Farmers RECC

CAIDI & CAIFI - Excluding Major Storms

<u>Year</u>	<u>CAIDI</u>	<u>CAIFI</u>
2000	1.80	NA
2001	1.83	NA
2002	1.90	NA
2003	1.55	NA
2004	1.85	NA

NA = Not Available.

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REQUEST 30

RESPONSIBLE PARTY: Tony Wells

REQUEST 30. Identify and describe all reportable distribution outages from January 1, 2003 until the present date. Categorize the causes and provide the frequency of occurrence for each cause category.

RESPONSE 30. Please see page 2 of this response.

Farmers RECC

Commission Reportable Distribution Outages

January 1, 2003 through April 5, 2005

<u>Cause</u>	<u>Number of Events</u>
Age/Deterioration	0
Birds/Animals	0
Equipment/Installation	0
Major Storm	2
Public	1
Right-of-way	0
Scheduled	0
Supplier	0
Unknown	0
Weather	0

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REQUEST 31

RESPONSIBLE PARTY: Jimmy Barrick/Chuck Bishop/Jerry Carter/

Terry Jeffries/Tony Wells

REQUEST 31. Does your utility have a distribution and/or transmission reliability improvement program?

RESPONSE 31. Farmers does not own or control transmission facilities. It does have a distribution system reliability improvement program.

REQUEST 31a. How does your utility measure reliability?

RESPONSE 31a. Farmers uses outage records and reports to track and measure distribution system reliability. Monthly reports are prepared in two formats. One report lists outages by substation and circuit. The other report lists outages by cause. Both reports indicate the number

of consumers affected and the consumer-hours resulting from the outages. Year-end reports are generated in a similar format.

REQUEST 31b. How is the program monitored?

RESPONSE 31b. Farmers uses outage reports and records, maintenance orders, inspection reports, customer satisfaction surveys, and consumer service complaints as indicators of the effectiveness of its distribution reliability improvement efforts. Reports are prepared by its staff and reviewed by management each month.

In an attempt to be more proactive in detecting distribution system problems, Farmers recently installed power quality monitoring equipment in each of its substations. This equipment immediately notifies Farmers of system disturbances and provides data to assist in determining the possible causes of the disturbances.

REQUEST 31c. What are the results of the system?

RESPONSE 31c. Farmers monitoring system allows it to track system performance and promptly identify areas of concern that need to be called to the attention of management.

REQUEST 31d. How are proposed improvements for reliability approved and implemented?

RESPONSE 31d. Areas of concern are called to the attention of management. Corrective action alternatives are developed by staff and presented to management for consideration. In

consultation with staff, management selects the best alternative, develops an action plan, and establishes a timeline for implementation.

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REQUEST 32

RESPONSIBLE PARTY: Chuck Bishop/Jerry Carter/Wayne Davis

REQUEST 32. Provide a summary description of your utility's:

- a. Right-of-way management program. Provide the budget for the last 5 years.
- b. Vegetation management program. Provide the budget for the last 5 years.
- c. Transmission and distribution inspection program. Provide the budget for the last 5 years.

RESPONSE 32a. Farmers maintains approximately 3,400 miles of distribution line. These lines cross a wide variety of terrain, from easily accessible low-lying cropland with relatively low tree density, to heavily forested areas very difficult to access and traverse.

Farmers has established a right-of-way management program to maintain line clearances on its right-of-ways. A combination of in-house and contract labor is used to perform the work required.

Right-of-ways are routinely hand and/or mechanically cleared of trees and brush on a 5-year cycle. Farmers maintains a database to track locations with fast growing tree species that may need additional attention before the next scheduled clearing cycle. These locations are checked periodically and additional trimming is done when required. Farmers has also implemented a trade-a-tree program to encourage property owners to grant permission for the removal of problem trees or “cycle busters”.

Farmers RECC

Annual Right-of-way Management Program Expenditures

<u>Year</u>	<u>Actual Amount</u>
2000	\$385,161
2001	\$560,068
2002	\$594,928
2003	\$511,734
2004	\$567,240

RESPONSE 32b. Farmers has established a vegetation management program to maintain line clearances on its right-of-ways. A combination of in-house and contract labor is used to perform the work required.

Right-of-ways are routinely treated with brush control chemical applications. High volume chemical spray applications are made to areas that have been mechanically cleared. These areas are monitored and a follow-up low volume chemical backpack spray application is applied when necessary. Farmers also uses the “Brown Brush Monitor”, a combination of mechanical clearing and chemical application.

Farmers seeks property owner permission before making chemical applications on its right-of-ways. If permission is denied, Farmers mechanically clears the area.

Farmers RECC

Annual Vegetation Management Program Expenditures

<u>Year</u>	<u>Actual Amount</u>
2000	\$63,339
2001	\$73,250
2002	\$115,239
2003	\$186,764
2004	\$180,283

RESPONSE 32c. Farmers has established a line and pole inspection program. A ride or walk through visual inspection of its distribution lines is routinely made on a 2-year cycle. Poles undergo a sound and/or bore inspection on a 10-year cycle. Farmers normally uses in-house labor to perform the inspections.

Measures have been taken to ensure that deficiencies found during the inspections are reported and corrected in a timely manner.

Farmers RECC

Annual Line & Pole Inspection Expenditures

<u>Year</u>	<u>Actual Amount</u>
2000	\$44,515
2001	\$63,254
2002	\$64,423
2003	\$23,514
2004	\$16,028

The amounts shown above include only those costs directly attributed to performing the inspections. They do not include the expenditures made to take corrective actions.

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REQUEST 33

RESPONSIBLE PARTY: Jimmy Barrick/Chuck Bishop/Tony Wells

REQUEST 33. Explain the criteria your utility uses to determine if pole or conductor replacement is necessary. Provide costs/budgets for transmission and distribution facilities replacement for the years 2000 through 2025.

RESPONSE 33. Farmers does not own or control transmission facilities.

Farmers routinely inspects and assesses the physical condition of its distribution poles and lines. Poles undergo a sound and/or bore inspection on a 10-year cycle. Farmers makes a ride or walk through inspection of its distribution lines on a 2-year cycle.

Farmers also monitors and evaluates outage and maintenance records. Certain geographical areas are inspected more frequently if warranted by operating experience. It also relies heavily on input from its operating personnel to identify facilities that should be considered for pole and/or conductor replacement.

The decision to replace a pole is left primarily in the hands of the pole inspector. The inspector relies heavily on personal experience and knowledge, Rural Utilities Service (“RUS”) guidelines, and the requirements of the National Electric Safety Code (“NESC”). If, in the inspector’s judgment, decay, insect, mechanical, lightning and/or woodpecker damage has reduced pole strength below NESC requirements, the pole is replaced. Poles are also replaced to meet NESC line clearance requirements.

Conductor replacements are driven by NESC strength requirements and engineering studies. In the event the physical condition of a conductor has deteriorated to the point it no longer meets NESC strength requirements, it is scheduled for replacement. If an engineering study reveals that the voltage drop or electric load in a line falls outside of an acceptable range, it is generally scheduled for replacement. Conductor replacements are normally included as a part of Farmers’ 4-year construction work plans approved and/or reviewed by RUS and the Commission.

ACTUAL & ESTIMATED POLE & CONDUCTOR**REPLACEMENT EXPENDITURES****2000 THROUGH 2025**

<u>Year</u>	<u>Amount</u>
2000	\$787,639
2001	\$821,604
2002	\$1,385,674
2003	\$596,585
2004	\$619,393
2005	\$835,940
2006	\$851,118
2007	\$876,652
2008	\$786,252
2009	\$689,640
2010	\$730,048
2011	\$751,950
2012	\$774,508
2013	\$797,743
2014	\$821,676
2015	\$846,326
2016	\$871,716
2017	\$897,867
2018	\$924,803
2019	\$952,547
2020	\$981,124
2021	\$1,010,557
2022	\$1,040,874
2023	\$1,072,100
2024	\$1,104,263
2025	\$1,137,391

2000 through 2004 reflect actual costs. 2005 through 2025 are estimated costs.